



# Support to Civil Authority in Seismic Disasters: Regional Initiatives

## U.S. Pacific Command Southeast Asia Seismic Disaster Preparedness Conference

By

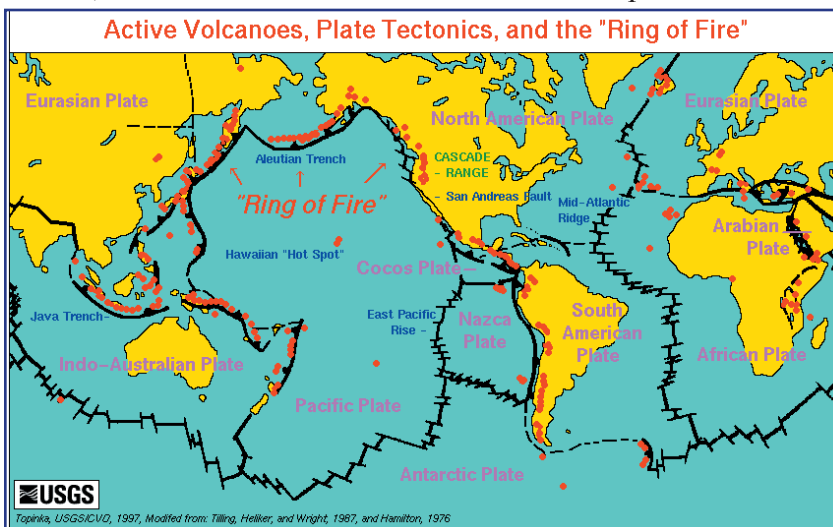
**Professor B.F. Griffard, Dr. Kent Hughes Butts, and Colonel (Retired) Art Bradshaw\***

*Circling the Pacific Basin, on the bottom of the sea bed, lie a dramatic series of volcanic arcs and oceanic trenches. The zone - the 'Ring of Fire' - notorious for frequent earthquakes and volcanic eruptions coincides with the edges of one of the world's main tectonic plates. — (BBC News - January 29, 1999)*

The "Ring of Fire" is a tough neighborhood. Fellow residents include over 75% of the world's active and dormant volcanoes, and along their fence line are a series of dynamic tectonic plates that produce frequent, and sometimes violent, seismic events. This delicate relationship between man and nature was brought home to Southeast Asia

on December 26, 2004 when a 9.0 earthquake off the coast of Sumatra produced a Tsunami that devastated the region.

Following the December 2004 tsunami the establishment of effective disaster preparedness planning capabilities at the national and regional levels became a goal of the governments in the region. In addition to being a sound political initiative, such preparedness planning speeds the national and regional reaction time, and assists international organizations and other countries in identifying appropriate response support.



## IDENTIFYING REGIONAL CAPABILITIES

In order to successfully identify each country's national capabilities it is necessary to evaluate the level of competency within the region as a whole. In an effort to gauge the status of disaster preparedness planning in Southeast Asia and to facilitate the sharing of best practices in disaster preparedness and response, the United States Pacific Command (USPACOM), the United States Army Pacific (USARPAC), the Center of Excellence in Disaster Management & Humanitarian Assistance (COE), and the Office of the Deputy Undersecretary of Defense

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(Installations & Environment) hosted the *Southeast Asia Seismic Disaster Preparedness Conference* in Honolulu, Hawaii, on September 26-28, 2005. Co-sponsored by the United States Army War College's Center for Strategic Leadership and the United States Embassy, Bangkok, the conference reinforced the U.S. Combating Terrorism strategy by supporting the struggle against radical ideology, identifying opportunities for military support to civil authority in building legitimacy with the population, and fostering regional defense security cooperation on seismic disaster response and planning.

Conference participants included senior civilian and military emergency planning professionals from Indonesia, Thailand, Viet Nam, Malaysia, the Philippines, Australia, New Zealand, and Mongolia. Though not a Southeast Asian country, western Mongolia experienced three major earthquakes of approximately magnitude 8, and another six events of about magnitude 7, during the 20th century and they shared their valuable experience with other participants at the conference.

## **DISASTER PREPAREDNESS: TECHNICAL AND MILITARY RESOURCES**

As mentioned above, seismic activity along the Pacific Rim is a reality that impacts governmental operations in the region. The immediacy of the disaster preparedness issue resulted in this conference leaning away from theory and academic studies and focusing on existing technology, processes, and lessons learned. The opening session set the tone for the remainder of the conference. Representatives from the U.S. Geological Survey (USGS), the U.S. Army Corps of Engineers (USACE), and the Pacific Tsunami Warning Center (PTWC) identified the monitoring, warning, and information exchange capabilities currently available to the Southeast Asian States, and how these technologies could lead to effective mitigation and preparedness through impact analysis of potential environmental events.

This technical review of disaster preparedness and consequence management resources and capabilities was followed by reviews of recent operational applications of existing programs. Representatives from USPACOM discussed key activities, observations, and lessons learned from the December 2004 Tsunami disaster from the Unified Command and U.S. government agency perspectives. Complementing this presentation the USARPAC speaker reviewed the highly regarded disaster preparedness mitigation assessment (DPMA) process. The DPMA is a comprehensive overview of a nation's vulnerabilities to disasters, a review of the national disaster plan, and an inventory of local resources resulting in a web-enabled written report and, if requested, a Geographic Information System (GIS) database. Completion of a DPMA provides the participating government with a pre-event mitigation roadmap, and speeds international response efforts when a seismic event occurs.

A key asset in the region for the training and education of foreign military and civilians in how to improve disaster management and humanitarian performance is the Center of Excellence in Disaster Management and Humanitarian Assistance. Located in Honolulu HI, and a direct reporting unit of USPACOM, the COE facilitates civil-military performance in humanitarian operations. It accomplishes this through efforts focused on health, non-governmental organization (NGO) operations, peace support, and the U.S. interagency process. Ms. Elise Leroux discussed their role and that of NGOs in her presentation.



**First Admiral Jamil Osman, Chief of Staff, Royal Malaysian Navy, discussed Malaysian Tsunami response activities.**

## **REGIONAL DISASTER PLANNING AND RESPONSE**

Throughout the first day of the conference, the speakers stressed the importance of civil-military cooperation and interagency coordination to successful mitigation, preparedness, and response actions. On Day Two the regional participants identified methods and capabilities for seismic disaster preparedness and response, the appropriate roles for the military in supporting civil authority, and their lessons learned. A common thread in the national presentations was a recognized four-step process for disaster management. For some it was the 4R's

(Reduction, Readiness, Response, and Recovery), for others it was a continuous phased process of mitigation, preparedness, response, and rehabilitation. In both cases the application of warning and prognostic technology in the reduction/mitigation stage was critical.

## MEETING THE CHALLENGES

A scarcity of resources within the region makes it a long trek from problem recognition to problem solution. That is why this conference was both a timely and valuable event for the participants. It provided a forum



**Mr. John Norton, Director, Ministry of Civil Defense and Emergency Management, New Zealand, discussed support for regional risk and disaster management capability.**

for the exchange of information on national disaster preparedness and consequence management procedures for both natural and man-made (terrorist) incidents, and identified areas for regional cooperation in education and training, information sharing, and disaster response contingency operations. The information provided by USGS, the PTWC, and USPACOM supported the efforts of the regional nations to establish effective mitigation and preparedness strategies.

Effective reduction/mitigation of vulnerabilities has the highest benefit, but such strategies are resource intensive, and therefore, reduce risk over time. The most immediate results come from the establishment of coordinated disaster preparedness/readiness plans and processes. Conference participants were unanimous in their support of such efforts and recognized that national plans must also address regional and international response coordination. Based on lessons learned from the December 2004 Tsunami relief effort, the Malaysian delegation highlighted the criticality of incorporating the participation of international military forces into preparedness planning. Sovereignty and command and control issues

initially slowed the application of available military resources following the Tsunami. Establishing regional protocols concerning the employment of non-national military forces in a humanitarian operation may, in a future disaster, result in the preservation of both life and property.

## LESSONS LEARNED

After reviewing recent disaster response efforts in Southeast Asia, to include the 2004 Tsunami, the conferees identified the following three contributors to success:

- Military response provided the rapid capability to fill gaps in Host Nation/international relief efforts;
- Joint interagency, multinational civil-military coordination is key to effective disaster relief operations;
- Theater Security Cooperation (military-to-military relations) activities facilitated mutual understanding and unity of effort.

Under the auspices of its Theater Security Cooperation Program (TSCP), USPACOM will continue to strengthen regional disaster preparedness/consequence management efforts through multi-national exercises that fully integrate the key United Nations agencies and other International organizations into the scenario. Augmenting this effort is the employment of the Multinational Planning Augmentation Team (MPAT) as a competency and confidence building instrument to strengthen the relationships between the regional nation's planning staffs and the U.S. Interagency community.

## THE ROAD AHEAD

An effective disaster management system is applicable to all crises. The four-phase process is the same whether a disaster is



**Dr. Kent Butts, Center for Strategic Leadership, USAWC, leads the "Road Ahead" Discussion.**



caused by nature, a pandemic, human carelessness, or by a conscious act of terrorism. As we have seen, a major seismic event does not recognize national borders; therefore, building a regional capacity for disaster management and response is a priority. The positive aspects of such an effort include the establishment of a regional seismic database and information sharing process, an integrated emergency management assessment program, increased interoperability, and improved working relationships between civilian and military responders.

To accomplish this goal some recommended that follow-on activities include the refinement of standard operating procedures (SOPs); the development of a contingency operations (CONOPS) concept; the installation of an information management system that allows the open sharing of critical information; and the institutionalization of disaster management education and training philosophies.

## SUMMARY

Knowing who to call in a crisis is a key piece of information. The *Southeast Asia Seismic Disaster Preparedness Conference* allowed the region's key disaster preparedness planners to meet face-to-face and laid the foundations for the friendship and trust necessary in the development of working relationships. Seismic events will continue to occur and impact lives within the "Ring of Fire," however, there is awareness among the Southeast Asian nations that there are actions within their reach that can mitigate the effects of the next major seismic event.



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## SUPPORT TO CIVIL AUTHORITY IN SEISMIC DISASTERS: REGIONAL INITIATIVES

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